



# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

March-27-12 2:47:44 PM

**\*82271\***

Page 2

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Cust Item ID:**

**\*15\***

**\*15\***

**Customer:**

**Reference:**

Run Start \*NR1\*

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Stop \*NR2\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Insp.  
Stamp**

0.00

**\*130\***

QC

## Memo

0.00

## Quality Control

140

QC8- Inspect parts - second check

0.00

**\*140\***

QC

## Memo

0.00

## Quality Control

150

Chemical Conversion Coat per QSI005 4.1

0.00

**\*150\***

### HandFinish

## Memo

0.00

## Hand Finishing

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# Work Order ID 82271

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**\*82271\***

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Item ID: D3488-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Blade Fitting Assembly, LH  
 Start Date: 27/03/2012 Start Qty: 15.00 **\*15\*** Cust Item ID:  
 Required Date: 10/04/2012 Req'd Qty: 15.00 **\*15\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 <b>*160*</b> Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo START TIME: 1210 FINISH TIME: 3200F	0.00 0.00				15x ✓			MA 12/04/30
170 <b>*170*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00				15 ✓			12-4-30
180 <b>*180*</b> HandFinish Hand Finishing	HandFinishing  Memo Install Inserts as per Dwg D3488	0.00 0.00				15 ✓			BF 12-4-30

M121134

3200F

1240

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# Work Order ID 82271



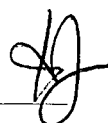
March-27-12 2:47:44 PM

**\*82271\***

Page 4

Item ID: D3488-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Blade Fitting Assembly, LH  
 Start Date: 27/03/2012 Start Qty: 15.00 **\*15\*** Cust Item ID:  
 Required Date: 10/04/2012 Req'd Qty: 15.00 **\*15\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 <b>*190*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00		8/2/12/12					
200 <b>*200*</b> Packaging Packaging	Identify as per dwg & Stock Location: <b>AP-2</b>  Memo	0.00 0.00				15	0	1252	
210 <b>*210*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00 0.00						12/5/2	

**12-05-2**

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

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Page 1

Work Order ID: 82271

\*82271\*

Parent Item: D3488-041

\*D3488-041\*

Parent Item Name: Blade Fitting Assembly, LH

Start Date: 27/03/2012

Required Date: 10/04/2012

Start Qty: 15.00

Required Qty: 15.00

Comments: IPP Rev:A New Issue 06-02-28 JLM  
IPP Rev:B As per Rev B 06-03-30 JLM  
IPP Rev:C Now On Doosan Lathe JLM Verified BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

ALS7-1032-225

Purchased

No

Each

1,162.000

60

\*AI S7-1032-225\*

\*\*

INSERT

*X ALS4-1032 225,*

Location

Loc Qty

Loc Code

ST282

1162

100896

135

111529

27

118520

1000

*60*

*OK 12-4-30*

D6103-003

Manufactured

No

Each

4.0000

15

\*D6103-003\*

\*\*

Round Billet, Aluminum

Location

Loc Qty

Loc Code

MAT043

4

76982

4

*82262*

*15*

*SD 12/4/16*

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	82271
<b>Description:</b> Blade Fitting, LH /Turning Detail for D3488-1/-2		<b>Part Number:</b>	D3488-1
<b>Inspection Dwg:</b> D3488 / DSK101 <b>Rev:</b> B / D		<b>Page 1 of 2</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article    
 ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
Ø2.150	+/-0.005	Ø2.142	/		SA-3	U/L
Ø2.780	+/-0.005	2.776	/			
Ø3.125	+/-0.010	3.121	/			
Ø3.346	+/-0.010	Ø3.346	/			
0.125 x 45°	+/-0.010 x +/-0.1°	.125945°	/			
8.000	+0.030/-0.000	8.012	/			
9.250	+/-0.010	9.248	/			
0.188	+/-0.010	.188	/			
R0.032	+/-0.010	R0.032	/		R.G.	
R0.062	+/-0.010	R0.062	/		R.G.	
Ø0.297	+0.005/-0.001	.300	/			
Ø0.430	+/-0.010	Ø.431	/			
0.100	+/-0.010	.101	/			
0.125	+/-0.010	.130	/			
2.620	+/-0.010	2.618	/			
3.500	+/-0.010	3.500	/			
1.005	+/-0.010	1.005	/			
Ø0.484	+0.005/-0.001	.486	/			
1.180	+/-0.010	1.180	/			
3.150	+/-0.010	3.150	/			
3.070	+/-0.010	3.072	/			
R0.063	+/-0.010	R.063	/			

**Dart Aerospace Ltd**

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<b>Description:</b> Blade Fitting, LH / Turning Detail for D3488-1/-2		<b>Part Number:</b>	D3488-1
<b>Inspection Dwg:</b> D3488 / DSK101 <b>Rev:</b> B / D		<b>Page 2 of 2</b>	

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
<b>Milling Section</b>						
Ø0.508	+0.006/-0.001	Ø 0.509	✓		SLO8	<del>VERN</del> VerN
0.750	+/-0.010	0.748	✓		↓	
1.500	+/-0.010	1.497	✓		↓	
11.18	+/-0.030	11.175	✓		↓	
R0.062	+/-0.010	R.062	✓		R.G.	
0.125	+/-0.010	0.124	✓		SLO8	VerN
0.590	+/-0.010	0.5905	✓		↓	
0.793	+/-0.010	0.793	✓		↓	
1.351	+/-0.010	1.351	✓		↓	
1.317	+/-0.010	1.319	✓		↓	
1.802	+/-0.010	1.797	✓		↓	

<b>Measured by:</b>	<i>SS</i>	<b>Audited by:</b>	<i>am</i>	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	12/04/22	<b>Date:</b>	12/04/24	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	
B	08.09.19	Reformat P/O D3488-041	KJ/JLM	
C	08.12.02	Dimension 8.000 removed	KJ/JLM	<i>[Signature]</i>

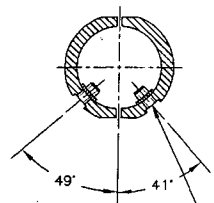
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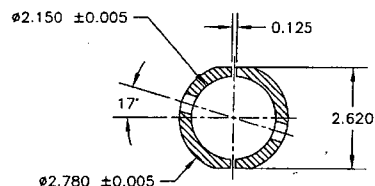
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SECTION B-B

Ø0.297  
C'BORE Ø0.430 x 0.100  
INSTALL ALS4-1032-225 (OR AKS4-1032-225  
OR ALS7-1032-225 OR AKS7-1032-225)  
INSERTS AFTER FINISH  
(4 PLACES)



SECTION A-A

**D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST**

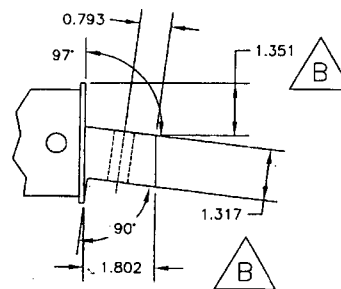
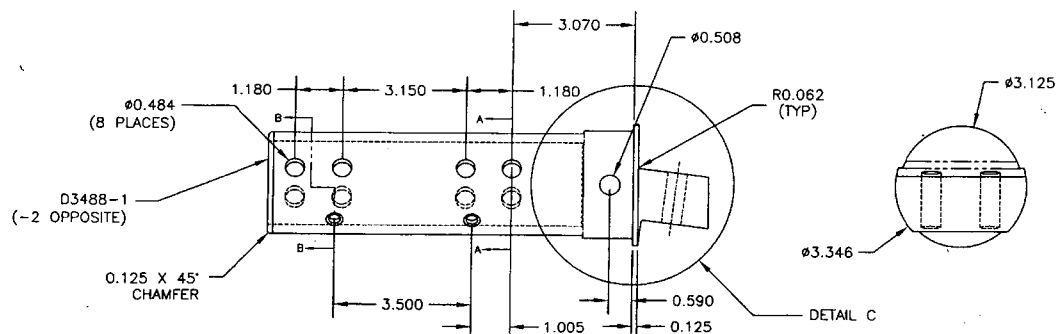
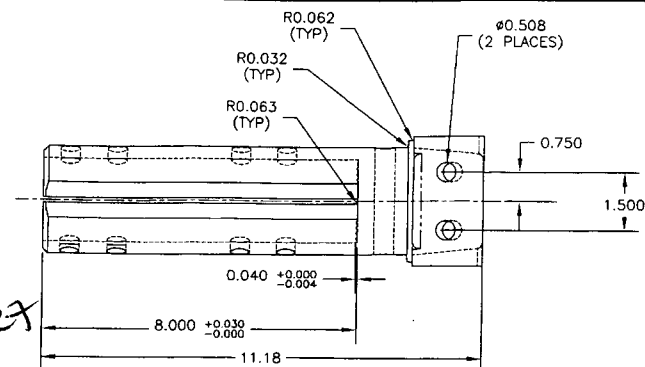
QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

**D3488-041/-042 BLADE FITTING**

- MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9 (REF. DART MATERIAL SPEC M7075T73R)
- FINISH: ACID ETCH; ALODINE PER DART QSI 005 4.1 POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- INSTALL INSERTS AFTER POWDER COAT
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 87271 MJS

12/03/27



DETAIL C

D3488-041 SHOWN (D3488-042 OPPOSITE)

**RELEASED**  
06.03.27 PH  
PER OS  
ELN #737

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE USA, INC.

B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN PH	DRAWN BY PH	<b>DART</b> DART AEROSPACE USA, INC. PORT HADLOCK, MA
CHECKED #	APPROVED #	DRAWING NO. D3488
DATE 06.03.15	TITLE BLADE FITTING	REV. B SHEET 1 OF 1 SCALE 1:3

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